

REMARKS

Claims 1-38 remain pending in this application. Further reconsideration of this application is requested.

Election of Species

The withdrawal from consideration of claims 10, 11 and 15 as allegedly being directed to non-elected species is traversed. Contrary to the Office action, the elected species of Fig. 4 in fact does disclose a truss unit 26 having leg members, and a core that has an open cell foam 29. See Fig. 4. Reconsideration and reinstatement of claims 10, 11 and 15 is requested.

35 U.S.C. § 112 Rejections

Claims 1, 2, 5, 22 and 30 have been amended to correct grammatical errors noted. The rejection of claim 18-20 and 23-25 based on the inclusion of trademarks/trade names is traversed.

While the Office action alleges there is no evidence that the respective trademarks have meanings well-known and satisfactorily defined in the literature, it is submitted that such meanings are so well-known and defined that the Examiner may take official notice of such well-known and defined meanings. In particular, the trademark "Kevlar" appears in the claims of at least 625 U.S. patents as found in a keyword search of the USPTO, see, e.g., U.S. Patent Nos. 3,955,856, 4,137,687, 4,230,293.

The trademark "Spectra" appears in the claims of the following U.S. Patents:

- 7,099,015 Fiber optic sensing device for measuring a physical parameter;
- 5,908,704 Interlayer film for protective glazing laminates;
- 5,549,360 Minimum weight wheel rim;
- 4,957,094 Compound archery bow with non-stretch bowstring and eccentrics for securing same;
- 4,163,148 Automatic focusing device probe comprising a focusing device and method of focusing a probe.

The trademark "S2 glass" appears in the claims of least 22 U.S. patents, including U.S. Patent No. 6,153,831 entitled Composite Insulator with 3-dimensional Weave of S2 Glass Fibers and Epoxy.

Finally, the trademark Zylon appears in the claims of the following U.S. Patents:
7,207,550 Elevator, procedure for the maintenance of the elevator, procedure for the modernization of an elevator and clamping device for an elevator;
6,389,594 Anti-ballistic ceramic articles;
6,367,509 Thermal harness using encased carbon-based fiber and end attachment brackets.

In view of the foregoing, reconsideration and withdrawal of the indefinite rejections are respectfully requested.

New Matter Objection

The objection to the amendment to the specification filed October 13, 2006 as introducing prohibited new matter into the specification is traversed. The Office action alleges that the phrase "or any combination thereof" is unsupported by the application as originally filed, in reference to the structure of the core 21 as containing a truss layer 26, textile layer 27, aperture sheet 28, and/or open cell foam 29. However, the application as originally filed in fact teaches in paragraph 0015 as published that the "core . . . can be a variety of forms and exist as a combination or sub-combination as disclosed through out this document." In any event, removal of the allegedly objectionable phrase would not change the meaning of the added sentence, which states that the core 21 may include one or a plurality of the listed materials/layers. One or a plurality of includes all combinations. Consequently, no new matter is added by the amendment, and withdrawal of this objection is requested.

Rejection over Brown et al.

The rejection of claims 1, 8/1, 18/1, 19/1, 20/1 and 26 as being anticipated by Brown et al., U.S. Patent No. 4,529,640, is traversed.

Brown discloses a composite armor structure having a layer of hard steel 12, an aluminum alloy sheet 22, a paper honeycomb spacer 20, and a ballistic woven fabric layer 18. The Office action improperly interprets ballistic layer 18 as corresponding to both the claimed bottom face sheet and the claimed fragment catching layer. This interpretation violates the Doctrine Against Double Inclusion, which prohibits a single element of the prior art from being applied to separately claimed elements that are separately disclosed in an application. See, e.g., Ex parte Kristensen, 10 USPQ2d

1701 (Bd. Pat. App. & Inter. 1989) (where a claim directed to a device can be read to include the same element twice, the claim may be indefinite).

Here, the bottom face sheet as claimed is disclosed as face sheet 23, and the fragment catching layer as claimed is disclosed as separate ballistic layer 71. Consequently, the single layer 18 of Brown cannot properly be construed to correspond to the two separate claim limitations of a bottom face sheet and a fragment catching layer as set forth in claims 1 and 26. Accordingly, this ground of rejection is improper and should be withdrawn.

Rejection over Groves

The rejection of claims 1-9, 12-14, 16, 18-21 and 23-38 as being anticipated by Groves, U.S. Patent No. 5,110,661, also is respectfully traversed.

Groves discloses a body armor structure made of an outer bullet-trapping component 11 and an inner impact spreading component 12. Thus, contrary to the position of the Office action, Kevlar layers 31 of inner component 12 do not function as the claimed projectile arresting layer, as any incoming projectile is already arrested by outer component 11. Further, bottom multilayer 33 also of Kevlar cannot correspond to the separately claimed bottom face sheet and fragment catching layer. Groves teaches that multiple sheets of Kevlar cloth 33 as provided form a single functional inner layer 28, see col. 7, ll. 9-12. Groves does not disclose that one of the sheets of layer 28 functions as a face sheet while other sheets function as a fragment catching layer.

Further still, Groves fails to disclose an open cell core structure as claimed. The core 30 is disclosed as including two layers 34 and 35, each of which includes a plurality of closely-packed, closed chambers or domes 42 and 43. The domes 42 and 43 have their bases fixed to intermediate layer 36 and their tops in contact with outer layer 27. See col. 7, ll. 12-31. The closed domes 42 contain plastic spheres 46, while the interstitial spaces between closed domes 43 contain plastic spheres 47. These structures do not correspond to an open cell core structure as required by the present claims.

For all of the foregoing reasons, as well as the fact that Groves fails to disclose the various features set forth in the dependent claims, it is submitted that Groves fails to anticipate any of claims 1-9, 12-14, 16, 18-21 or 23-38.

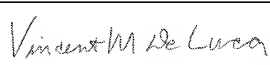
Rejection over Groves and Tippet

The rejection of claims 17 and 22 as being unpatentable over the proposed combination of Groves with Tippet, US Pub. No. 2001/0030023, also is respectfully traversed. The composite expansion joint material of Tippet is simply irrelevant to the claimed invention and irrelevant to Groves. One of ordinary skill in the art would not attempt to modify the Groves armor to include a material disclosed by Tippet as useful in an expansion joint. In any event, Tippet fails to cure the deficiency of Groves with respect to the independent claims from which claims 17 and 22 depend, and thus no combination of Tippet with Groves could result in the invention of claim 17 or claim 22.

Conclusion

In view of the foregoing amendments and remarks, claims 1 - 38 are submitted to define patentable subject matter over the prior art of record. Favorable reconsideration and the issuance of a Notice of Allowance are earnestly solicited.

Please charge any fee or credit any overpayment pursuant to 37 CFR 1.16 or 1.17 to Novak Druce Deposit Account No. 14-1437.

RESPECTFULLY SUBMITTED,					
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